## **RAW SEQUENCE LISTING**

7

71

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number:

Source:

Date Processed by STIC:

ENTERED



**IFWP** 

RAW SEQUENCE LISTING DATE: 07/19/2006
PATENT APPLICATION: US/10/585,554 TIME: 08:27:34

Input Set : A:\12136.0003USWO-Sequence Listing.txt

```
3 <110 > APPLICANT: Idaho Research Foundation, Inc.
      5 <120> TITLE OF INVENTION: METHODS FOR REDUCING SOMATIC CELL COUNT IN MILK
     7 <130> FILE REFERENCE: 12136.0003USWO
C--> 9 <140> CURRENT APPLICATION NUMBER: US/10/585,554
     10 <141> CURRENT FILING DATE: 2006-07-06
     12 <150> PRIOR APPLICATION NUMBER: PCT/US2005/000482
     13 <151> PRIOR FILING DATE: 2005-01-07
     15 <150> PRIOR APPLICATION NUMBER: US 60/535,454
     16 <151> PRIOR FILING DATE: 2004-01-08
     18 <160> NUMBER OF SEQ ID NOS: 19
     20 <170> SOFTWARE: PatentIn version 3.3
     22 <210> SEQ ID NO: 1
     23 <211> LENGTH: 18
     24 <212> TYPE: PRT
     25 <213> ORGANISM: Staphylococcus aureus
     27 <400> SEQUENCE: 1
     29 Cys Tyr Phe Ser Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys
     30 1
                        5
                                            10
     33 Thr Cys
     37 <210> SEQ ID NO: 2
     38 <211> LENGTH: 54
     39 <212> TYPE: DNA
     40 <213> ORGANISM: Staphylococcus aureus
     42 <400> SEQUENCE: 2
     43 tgctattttt catccaaaga taatgtaggt aaagttacag gtggcaaaac ttgt
                                                                               54
     46 <210> SEQ ID NO: 3
     47 <211> LENGTH: 14
     48 <212> TYPE: PRT
     49 <213> ORGANISM: Artificial
     51 <220> FEATURE:
     52 <223> OTHER INFORMATION: Synthetic
     54 <400> SEQUENCE: 3
     56 Cys Tyr Phe Ser Ser Lys Asp Asn Ala Gly Gly Lys Thr Cys
     57 1
     60 <210> SEQ ID NO: 4
     61 <211> LENGTH: 42
     62 <212> TYPE: DNA
     63 <213> ORGANISM: Artificial
     65 <220> FEATURE:
     66 <223> OTHER INFORMATION: Synthetic
     68 <400> SEQUENCE: 4
                                                                               42
     69 tgctattttt catccaaaga taatgcaggt ggcaaaactt gt
     72 <210> SEQ ID NO: 5
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Input Set : A:\12136.0003USWO-Sequence Listing.txt

Output Set: N:\CRF4\07192006\J585554.raw

```
73 <211> LENGTH: 9
74 <212> TYPE: PRT
75 <213> ORGANISM: Artificial
77 <220> FEATURE:
78 <223> OTHER INFORMATION: Synthetic
80 <400> SEQUENCE: 5
82 Cys Tyr Phe Ser Ser Gly Lys Thr Cys
83 1
86 <210> SEQ ID NO: 6
87 <211> LENGTH: 27
88 <212> TYPE: DNA
89 <213> ORGANISM: Artificial
91 <220> FEATURE:
92 <223> OTHER INFORMATION: Synthetic
94 <400> SEQUENCE: 6
95 tgctattttt catccggcaa aacttgt
                                                                           27
98 <210> SEQ ID NO: 7
99 <211> LENGTH: 6
100 <212> TYPE: PRT
101 <213> ORGANISM: Artificial
103 <220> FEATURE:
104 <223> OTHER INFORMATION: Synthetic
106 <400> SEQUENCE: 7
108 Cys Cys Gly Lys Thr Cys
109 1
112 <210> SEQ ID NO: 8
113 <211> LENGTH: 18
114 <212> TYPE: DNA
115 <213> ORGANISM: Artificial
117 <220> FEATURE:
118 <223> OTHER INFORMATION: Synthetic
120 <400> SEQUENCE: 8
                                                                            18
121 tgctgtggca aaacttgt
124 <210> SEQ ID NO: 9
125 <211> LENGTH: 240
126 <212> TYPE: PRT
127 <213> ORGANISM: Staphylococcus aureus
130 <220> FEATURE:
131 <221> NAME/KEY: misc feature
132 <222> LOCATION: (240)..(240)
133 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
135 <400> SEQUENCE: 9
137 Glu Ser Gln Pro Asp Pro Thr Pro Asp Glu Leu His Lys Ala Ser Lys
                                         10
141 Phe Thr Gly Leu Met Glu Asn Met Lys Val Leu Tyr Asp Asp His Tyr
142
145 Val Ser Ala Thr Lys Val Lys Ser Val Asp Lys Phe Leu Ala His Asp
146
```

149 Leu Ile Tyr Asn Ile Ser Asp Lys Leu Lys Asn Tyr Asp Lys Val

Input Set : A:\12136.0003USWO-Sequence Listing.txt

```
150
    153 Lys Thr Glu Leu Leu Asn Glu Gly Leu Ala Lys Lys Tyr Lys Asp Glu
     157 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
     161 Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys Thr Cys Met Tyr
                                         105
     165 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
                                     120
    169 Gln Asn Val Leu Ile Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser
                                 135
     173 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
                             150
     177 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
                                             170
                         165
     181 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn Asn
                     180
                                         185
     185 Gly Asn Thr Phe Trp Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
                                     200
     189 Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Thr Val Asp
                                 215
                                                     220
W--> 193 Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa
     194 225
                             230
                                                 235
     197 <210> SEQ ID NO: 10
     198 <211> LENGTH: 240
     199 <212> TYPE: PRT
     200 <213> ORGANISM: Staphylococcus aureus
     203 <220> FEATURE:
     204 <221> NAME/KEY: misc feature
    205 <222> LOCATION: (240)..(240)
     206 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
     208 <400> SEQUENCE: 10
     210 Glu Ser Gln Pro Asp Pro Thr Pro Asp Glu Leu His Lys Ser Ser Glu
    214 Phe Thr Gly Thr Met Gly Asn Met Lys Tyr Leu Tyr Asp Asp His Tyr
     218 Val Ser Ala Thr Lys Val Met Ser Val Asp Lys Phe Leu Ala His Asp
                                     40
     222 Leu Ile Tyr Asn Ile Ser Asp Lys Lys Leu Lys Asn Tyr Asp Lys Val
                                 55
     226 Lys Thr Glu Leu Leu Asn Glu Asp Leu Ala Lys Lys Tyr Lys Asp Glu
                             70
     230 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
                       · 85
     234 Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys Thr Cys Met Tyr
     238 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
                 115
                                     120
    242 Gln Asn Val Leu Ile Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser
```

Input Set : A:\12136.0003USWO-Sequence Listing.txt

```
135
            130
    246 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
                             150
    250 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
                         165
                                             170
    254 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn Asn
                                         185
    258 Gly Asn Thr Phe Gln Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
                195
                                     200
    262 Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Thr Val Asp
                                 215
            210
W--> 266 Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa
    267 225
                             230
                                                 235
    270 <210> SEQ ID NO: 11
    271 <211> LENGTH: 240
    272 <212> TYPE: PRT
    273 <213> ORGANISM: Staphylococcus aureus
    276 <220> FEATURE:
    277 <221> NAME/KEY: misc feature
    278 <222> LOCATION: (240)..(240)
    279 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
    281 <400> SEQUENCE: 11
    283 Glu Ser Gln Pro Asp Pro Met Pro Asp Asp Leu His Lys Ser Ser Glu
    287 Phe Thr Gly Thr Met Gly Asn Met Lys Tyr Leu Tyr Asp Asp His Tyr
                     20
                                         25
    291 Val Ser Ala Thr Lys Val Lys Ser Val Asp Lys Phe Leu Ala His Asp
                                     40
    295 Leu Ile Tyr Asn Ile Ser Asp Lys Lys Leu Lys Asn Tyr Asp Lys Val
                                 55
    299 Lys Thr Glu Leu Leu Asn Glu Asp Leu Ala Lys Lys Tyr Lys Asp Glu
    303 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
                                             90
                         85
    307 Ser Lys Asp Asn Val Gly Lys Val Thr Gly Gly Lys Thr Cys Met Tyr
                     100
                                         105
                                                              110
    311 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
                115
                                     120
    315 Gln Asn Val Leu Val Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser
                                 135
    319 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
    320 145
                             150
                                                 155
    323 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
    327 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Asn Asn
                     180
                                         185
    331 Gly Asn Thr Phe Gln Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
                195
                                     200
    335 Asp Gln Ser Lys Tyr Leu Met Met Tyr Asn Asp Asn Lys Thr Val Asp
```

Input Set : A:\12136.0003USWO-Sequence Listing.txt

```
336
             210
                                 215
W--> 339 Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa
     340 225
                             230
                                                  235
     343 <210> SEQ ID NO: 12
     344 <211> LENGTH: 240
     345 <212> TYPE: PRT
     346 <213> ORGANISM: Staphylococcus aureus
     349 <220> FEATURE:
     350 <221> NAME/KEY: misc_feature
     351 <222> LOCATION: (240)..(240)
     352 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid
     354 <400> SEQUENCE: 12
     356 Glu Ser Gln Pro Asp Pro Met Pro Asp Asp Leu His Lys Ser Ser Glu
     357 1
     360 Phe Thr Gly Thr Met Gly Asn Met Lys Tyr Leu Tyr Asp Asp His Tyr
     364 Val Ser Ala Thr Lys Val Lys Ser Val Asp Lys Phe Leu Ala His Asp
     368 Leu Ile Tyr Asn Ile Asn Asp Lys Lys Leu Asn Asn Tyr Asp Lys Val
     372 Lys Thr Glu Leu Leu Asn Glu Asp Leu Ala Asn Lys Tyr Lys Asp Glu
     376 Val Val Asp Val Tyr Gly Ser Asn Tyr Tyr Val Asn Cys Tyr Phe Ser
     380 Ser Lys Asp Asn Val Gly Lys Val Thr Ser Gly Lys Thr Cys Met Tyr
                     100
                                         105
     384 Gly Gly Ile Thr Lys His Glu Gly Asn His Phe Asp Asn Gly Asn Leu
                                     120
     388 Gln Asn Val Leu Ile Arg Val Tyr Glu Asn Lys Arg Asn Thr Ile Ser
                                 135
     392 Phe Glu Val Gln Thr Asp Lys Lys Ser Val Thr Ala Gln Glu Leu Asp
     393 145
                             150
     396 Ile Lys Ala Arg Asn Phe Leu Ile Asn Lys Lys Asn Leu Tyr Glu Phe
     397
                         165
                                             170
     400 Asn Ser Ser Pro Tyr Glu Thr Gly Tyr Ile Lys Phe Ile Glu Ser Asn
                     180
                                         185
     404 Gly Asn Thr Phe Trp Tyr Asp Met Met Pro Ala Pro Gly Asp Lys Phe
                 195
                                     200
     408 Asp Gln Ser Lys Tyr Leu Met Ile Tyr Lys Asp Asn Lys Met Val Asp
                                 215
W--> 412 Ser Lys Ser Val Lys Ile Glu Val His Leu Thr Thr Lys Asn Gly Xaa
     413 225
                             230
                                                  235
     416 <210> SEQ ID NO: 13
     417 <211> LENGTH: 240
     418 <212> TYPE: PRT
     419 <213> ORGANISM: Staphylococcus aureus
     422 <220> FEATURE:
     423 <221> NAME/KEY: misc_feature
     424 <222> LOCATION: (240)..(240)
```

Input Set : A:\12136.0003USWO-Sequence Listing.txt

Output Set: N:\CRF4\07192006\J585554.raw

## Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; Xaa Pos. 240
Seq#:10; Xaa Pos. 240
Seq#:11; Xaa Pos. 240
Seq#:12; Xaa Pos. 240
Seq#:13; Xaa Pos. 240
Seq#:14; Xaa Pos. 240
Seq#:15; Xaa Pos. 240
Seq#:16; Xaa Pos. 240
Seq#:17; Xaa Pos. 240
Seq#:17; Xaa Pos. 228
Seq#:18; Xaa Pos. 231
Seq#:19; Xaa Pos. 236

## Invalid <213> Response:

Use of "Artificial" only as "<213> Organism" response is incomplete, per 1.823(b) of New Sequence Rules. Valid response is Artificial Sequence.

Seq#:3,4,5,6,7,8,17,18,19

## VERIFICATION SUMMARY

DATE: 07/19/2006 TIME: 08:27:35

Input Set : A:\12136.0003USWO-Sequence Listing.txt

Output Set: N:\CRF4\07192006\J585554.raw

PATENT APPLICATION: US/10/585,554

L:9 M:270 C: Current Application Number differs, Replaced Current Application Number
L:193 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:224
L:266 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:10 after pos.:224
L:339 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:11 after pos.:224
L:412 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:224
L:485 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:13 after pos.:224
L:558 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14 after pos.:224
L:631 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:15 after pos.:224
L:704 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:224
L:780 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:16 after pos.:224
L:856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:17 after pos.:224
L:856 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:224
L:932 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:18 after pos.:224